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EXAMINER

ABDULSELAM, ABBAS I

ART UNIT PAPER NUMBER

2674

DATE MAILED: 07/19/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/473,598

Applicant(s)

RAYMOND C. EDMONDS

Examiner

Abbas I Abdulsalam

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5, 10-13, 15-22, 24 and 26-43 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 10-13, 15-22, 24 and 26-43 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-3, 5, 10-13, 15-22, 24 and 26-43 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1, 3, 5, 10-13, 15-17, 20-22, 24 and 26-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salesky et al. (USPN 6343311) Teng et al (USPN 5903473).

Regarding claims 1 and 22, Salesky teaches a conferencing system (10) including presenter client computer (12) and three attendee clients (18) that are connected through a conference server (14) and data network (16). See col. 6, lines 66-67, col. 7, lines 1-10 & Fig. 1. Salesky teaches graphic drawing commands updating a specific region of the image, and discloses a comparison whose result ignores unchanged portions of the captured image and transmits only changed ones. See col. 12, lines 1-16, 34-44 & Fig. 4A. For example, if a block "B6" is the block being sent, block "B6" of the current copy of the captured image 69(a) is compared with block "B6" of the most recently stored reference copy 69(b) of the capture image.

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If the result shows B6 has changed, it will be transmitted. If not, it will not be transmitted. See col. 12, lines 34-49, Fig. 4A, and Fig. 4B. Furthermore, Salesky discloses that a block is sent to the stored image allowing the stored image to be updated at the same time the changes are sent to the server. See col. 12, lines 63-67 & Fig. 4D. Moreover, Salesky discloses three conferee clients (17a, 17b, 17c) each using different protocol in their respective network connections. See Fig. 11 and col. 30, lines 3-14.

However, Salesky does not disclose “transmitting of identified updated image data from a video controller to a display”. Salesky also does not teach the first updated portion and the second updated portion being transmitted over a shared communication channel coupled between the video controller, the first display device and the second display device”. Teng on the other hand teaches as shown in Fig. 1 a video server (12), which can be a video controller (col. 6, lines 62-65) that is connected to a local area network (LAN) segment (13), which is a shared transmission medium (abstract). See col. 5, lines 36-38. Teng teaches that the server (12) can mediate distribution of a live video stream to one or more of the clients (14-i). See col. 5, lines 67, col. 6, lines 1-3 and Fig. 1.

Therefore, it would have been obvious to one having skill in the art at the time the invention was made to modify Salesky’s client-server system (Fig. 1) to adapt Teng’s use of video server (12) along with shared transmission medium (13) as illustrated in Fig. 1. One would have been motivated in view of the suggestion in Teng that the video server (12) along with shared transmission medium (13) as configured in Fig. 1 is functionally the same as the desired video controller that is coupled with shared communication channel. The use of video server helps run video application in a client server system as taught by Teng.

Furthermore, One skilled in the art would have ascertained that Teng's teaching of clients (14-2, 14-3, 14-4) as shown in Fig. 1 are functional equivalents of the desired "first and second display devices". In addition, Teng's server (12) meets the "desired transmission of image data from a video controller to a display" by the virtue of its distribution of a live video stream to clients.

Regarding claims 3 and 5, Salesky teaches flow control between presenter client (12) and server (14) and between server (14) and attendee client (18) determining how often the attendee client receives information updating the image. See col. 8, lines 3-10. It would have been obvious the presenter client can decide the transmission to take place at any interval including irregular interval.

Regarding claim 10, Salesky teaches that the presenter client sends out a stream or streams, which can vary in format. See col. 14, lines 45-46.

Regarding claim 11, Salesky teaches that the presenter client can dynamically change the format in which it provides the data. See col. 19, lines 15-27. It would have been obvious that the presenter client can do a uniform format.

Regarding claims 12 and 24, Salesky teaches the presenter client software along with attendee client software in connection with the server relaying the information to all the attendee client computers and transforming the data as required. It would have been obvious that the presenter client software identifies the attendees including their addresses. See col. 7, lines 21-33.

Regarding claim 13, Salesky discloses the presenter client that identifies where the block is in the capture rectangle with block-location ID stamp, and identifies the time with a time-

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stamp. Salesky also teaches synchronization in the system through conference server (14), which issues time synchronization signals. See col. 7, lines 57-65.

Regarding claim 15, Salesky teaches CSS 40(a) providing an included “gateway” layer 40(b) for each connection protocol other than the system protocol and this layer translates the client’s non-system protocol to the system protocol. See col. 30, lines 3-14.

Regarding claims 16-17, Salesky teaches the use of time stamps, and discloses synchronizer (130), which uses arbitration technique to maintain consistency between client time stamps and server receipt time stamps. See col. 20, lines 32-37.

Regarding claims 20-21, Teng teaches the use of clients (14-2, 14-3).

Regarding claim 26, Salesky teaches the use of all types of data streams as well as the use of non-visual transmissions such as audio within the network. See col. 3, lines 42-51.

Regarding claim 27, Salesky teaches the use of coder-decoder (codec) facilitating for the compression and decompression of images. See col. 3, lines 24-30.

Regarding claims 28-29, Teng teaches a local area network (LAN) segment (13), which is a shared transmission medium (abstract). See col. 5, lines 36-38. It would have been that the shared transmission could be of any desired types.

3. Claims 2 and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salesky et al. (USPN 6343311), Teng et al (USPN 5903473) and Ohshima (USPN 5977945).

Salesky does not disclose refreshing the image from video memory. Ohshima on the other hand teaches a partial rewritten library (32) functioning in response to the partially rewritten line determination means (16). See col. 3, lines 26-31.

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Therefore, it would have been obvious to further modify Salesky's client-server system (Fig. 1) to adapt Ohshima's partially written line determination means (10). One would have been motivated in view of the suggestion in Ohshima that the partially written line determination means equivalently provides the desired refreshing of the image from video memory. The use of partially written line determination helps function client-server system as taught by Ohshima.

In addition, Ohshima discloses X client (30) with respect to X server (31) to determine the line to which partial writing should be applied and transfers such information to the remote firmware (35). See Fig. 3, lines 22-28.

Regarding claims 18-19, Ohshima teaches the use of a display controller (36) and a graphic controller (27) with executable software (44). See col. 3, lines 62-67 and col. 4, lines 1-6.

4. Claims 30-33 are rejected under 35 U.S.C. (103) as being unpatentable over Salesky et al. (USPN 6343311), Teng et al (USPN 5903473) and Begun et al. (USPN 5459842).

Ohshima does not teach "updating the memory of the display device if an address associated with the updated portion of the video image data matches a display device address".

Begun et al. on the other hand teaches a comparator being connected to the local address bus and to the first address buffer and being operative to compare the address buffer in the first address buffer with the address on the local bus in a second partial write cycle request and generating a MATCH signal when the two addresses being compared are the same. See Fig. 5 and col. 7, lines 23-40.

Therefore, it would have been obvious to one having skill in the art at the time the invention was made to modify Salesky's client-server system (Fig. 1) to adapt Begun's write

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buffer including a comparator (633). One would have been motivated in view of the suggestion in begun that the write buffer including the comparator (633) as configured in Fig. 5 equivalently yields the desired “updating of a memory with respect to address matching”. The use of a write buffer helps function a video display (104) taught by Begun.

5. Claims 34- and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohshima (USPN 5977945), Teng et al. (5930473) and Begun et al. (USPN 5459842).

Regarding claims 34 and 39, Ohshima teaches as shown on Fig. 1 a display driver means (12) up-dates the image data in the frame buffer (13) as requested by application software (11) and at the same time, transfers the information regarding up-dated line to partially rewritten line determination means (16). Ohshima also teaches that the partially rewritten line determination means (16) determines the line for which partial rewriting must be executed on the basis of the information transferred from the display driver means (12). See col. 2, lines 33-43. However, Ohshima does not teach the use of shared communication channel. Teng teaches as shown in Fig. 1, and mentioned above the use of a local area network (LAN) segment (13), which is a shared transmission medium (abstract). See col. 5, lines 36-38.

Therefore, it would have been obvious to modify Ohshima’s client –server system to adapt Teng’s shared transmission medium (13). One would have been motivated in view of the suggestion in Teng that the shared transmission medium (13) equivalently meets the desired

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“shared communication channel”. The use of shared transmission medium (13) helps function a client –server system as taught by Teng.

Ohshima does not teach “updating the memory of the display device if an address associated with the updated portion of the video image data matches a display device address”.

Begun et al. on the other hand teaches a comparator being connected to the local address bus and to the first address buffer and being operative to compare the address buffer in the first address buffer with the address on the local bus in a second partial write cycle request and generating a MATCH signal when the two addresses being compared are the same. See Fig. 5 and col. 7, lines 23-40.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ohshima’s display system to adapt Begun’s write buffer including a comparator (633). One would have been motivated in view of the suggestion in begun that the write buffer including the comparator (633) as configured in fig. 5 equivalently yields the desired “updating of a memory with respect to address matching”. The use of a write buffer helps function a video display (104) taught by Begun.

6. Claims 35-38 and 40-43 are rejected under 35 U.S.C. (103) as being unpatentable over Ohshima (USPN 5977945), Teng et al. (5930473), Begun et al. (USPN 5459842) and Salesky et al. (USPN 6343313)

Regarding claims 35, 36, and 43, Ohshima as modified does not teach “the update portion of video image data representing video image data that has changed since a previous

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transmission to the display device and excludes a substantial portion of the video image data that is unchanged since the previous transmission to the display device”.

Salesky teaches graphic drawing commands updating a specific region of the image, and discloses a comparison whose result ignores unchanged portions of the captured image and transmits only changed ones. See col. 12, lines 1-16, and 34-44 & Fig. 4A.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made further modify Ohshima's client server system to adapt Salesky's information transmission as illustrated in Fig. 4A. One would have been motivated in view of the suggestion Salesky that the information transmission as illustrated in Fig. 4A meets desired the updating of a video image. The use of information transmission helps client-server system as taught by Salesky.

Regarding claims 37 and 38, Salesky teaches flow control between presenter client (12) and server (14) and between server (14) and attendee client (18) determining how often the attendee client receives information updating the image. See col. 8, lines 3-10. It would have been obvious the presenter client can decide the transmission to take place at any interval including irregular interval.

Regarding claims 40-41, Begun teaches a video display monitor (104) of Fig. 1 and a form of write buffer as shown in Fig. 5.

Regarding claim 42, see Teng's Fig. 1(13).

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Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

8. Any inquiry concerning this communication or earlier communication from the examiner should be directed to **Abbas Abdulsalam** whose telephone number is **(703) 305-8591**. The examiner can normally be reached on Monday through Friday (9:00-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richard Hjerpe**, can be reached at **(703) 305-4709**.

Any response to this action should be mailed to:

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Commissioner of patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314

Hand delivered responses should be brought to Crystal Park II, Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology center 2600 customer Service office whose telephone number is (703) 306-0377.

Abbas Abdulsalam

Examiner

Art Unit 2674

July 10, 2004



XIAO WU
PRIMARY EXAMINER